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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,932	09/17/2001	Hendrikus Jan Kapaan	110191	4418

25944 7590 10/28/2003

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EXAMINER

KRAMER, DEVON C

ART UNIT	PAPER NUMBER
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3683

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,932

Applicant(s)

KAPAAN ET AL.

Examiner

Devon C Kramer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

- 1) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 2) Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is difficult to read and understand. It could be re-written to read, "An actuator, comprising: a housing accommodating a screw mechanism; and a drive comprising a motor, wherein said screw mechanism comprises a nut and a screw, the screw being rotatably supported relative to the housing, such that upon rotation of the screw relative to the nut a linear movement of the screw is obtained; wherein at least a rotor of the motor is rotatably supported on the screw which is rotatably supported relative to the housing."

Claim 1 was amended to clarify that the screw and not the nut was rotatable. Claim 11 still presents the alternative. This claim should be amended to clarify that it is the screw that is rotatable.

Claim Rejections - 35 USC § 102

- 3) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4) Claims 1-3, 7, 10-11, 30 and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Koth et al (WO 99/42739). Please note that US 6349801 has been used as a translation of the PCT publication.

In reference to claims 1 and 33, Koth et al provides an actuator (figure 1), comprising: a housing (12) accommodating a screw mechanism (36); a drive including a motor (20); the screw mechanism including a nut (42) and a screw (36), the screw rotatably supported relative to the housing (abstract), such that upon rotation of the screw relative to the nut a linear movement of one of the nut and screw is obtained; and a rotor (26) of the drive is rotatably supported on the screw which is rotatably supported relative to the housing; a claw piece (10) carrying at least two brake pads (14, 16) which enclose a gap for accommodating a disc brake.

In reference to claims 2 and 3, Koth et al provides an actuator where the screw and rotor are rotatably supported with respect to the housing by a support or auxiliary bearing (32).

In reference to claim 7, Koth et al provides an actuator where the outer ring of the bearing supports a rotatable sleeve (28) which is in connection with the rotatable component of the drive. Please note that the portion of element 28 is considered a sleeve because it is annular and fits over the outer ring of the bearing.

In reference to claim 10, Koth et al provides an actuator where the sleeve is connected to the rotor of the motor.

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In reference to claim 11, Koth et al provides an actuator where the nut and the screw are rotatably supported both according to an axis parallel with respect to the linear movement, and according to at least on axis transverse with respect to the linear movement.

In reference to claim 30, the examiner takes official notice that elements of gearing and parts under a high load are conventionally formed by hard turning.

Claim Rejections - 35 USC § 103

5) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6) Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koth et al (WO 99/42739) in view of Airheart (4180146).

Koth et al lacks the teaching of a bore containing a grease dosing unit.

Airheart teaches the use of a grease dosing unit (94).

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the assembly of Koth et al with a grease dosing unit in order to provide a means to keep the rotating parts lubricated. It is well known in the art of gearing to maintain a sufficient amount of grease or oil on the mating surfaces.

7) Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koth et al (WO 99/42739) in view of Chareire (5293966).

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It is known in the art to produce load bearing parts of high strength material. Kingston et al is silent to the material used to produce the components of the device.

Chareire teaches the use of producing load bearing parts out of a carbon.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the load bearing parts of Koth et al with carbon material as taught by Chareire, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshinb, 125 USPQ 416.

8) Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koth et al (WO 99/42739) in view of Tanaka (6089359).

It is known in the art to use an encoder to measure rotation. Koth et al lacks the teaching of an encoder for measuring relative rotation.

Tanaka teaches the use of an encoder for measuring relative rotation.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided the actuator of Koth et al with the encoder as taught by Tanaka in order to measure the relative position of the internal parts.

Allowable Subject Matter

9) Claims 4-6, 8-9, and 12-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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Conclusion

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Devon C Kramer whose telephone number is 703-305-0839. The examiner can normally be reached on Mon-Fri 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-3519 for regular communications and 703-308-3519 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1134.

DK
October 23, 2003

Devon Kramer
10-23-03